

REMARKS

Claims 15-21 are pending and have been amended. Claims 15, 18 and 21 are the only independent claims.

The drawings were objected to under 37 C.F.R. 1.84(p)(4) because reference characters “230” and “233” have both been used to designate PILOT INVERSE MODULATION. As suggested by the Examiner, PILOT INVERSE MODULATION has been replaced in box 233 by PILOT INVERSE MODULATOR in Figures 3A and 6. Withdrawal of the objection is requested.

Claims 15-20 were objected to for informalities. The claims have been amended to correct these informalities in the manner suggested in the Office Action, except that in claim 17 “the orthogonal” is already recited as “an orthogonal,” and therefore does not need to be changed.

Claims 15-20 were rejected under 35 U.S.C. 112, first paragraph as allegedly not reciting essential structure or steps. Without conceding the propriety of this rejection, claim 15 and 18 have been amended to recite the controlling step (claim 15) or the controlling section (claim 18). This amendment clearly obviates the rejection and its withdrawal is requested.

Claim 19 was rejected under 35 U.S.C. 112, second paragraph, as indefinite. In particular, the position was taken that the estimating section disclosed in the specification does not include a complex adder. Claim 19 has been amended to more clearly recite structure that reads on the disclosure. Withdrawal of the rejection is respectfully requested.

Claims 15-21 were rejected under 35 U.S.C. 103 over admitted prior art in view of Sato (EP 0810743). Applicants submit that independent claims 15, 18 and 21 are patentable for at least the following reasons.

Among the features of claim 15 not taught or suggested in the prior art is the in-phase summing in at least two different summation rates the pilot symbols each having a complex vector expression over a predetermined length of a symbol interval.

The Office Action concedes that this feature is not taught in the admitted prior art. However, the position was taken that Sato teaches this feature, and further that it would have been obvious to modify the admitted prior art to add this feature.

Sato teaches a base station having a transceiving section 100 having pilot symbol in-phase adding circuit 113. According to the specification of Sato, adding circuit 113 enhances the SN ratio of the pilot symbol by performing an in-phase addition of the plural pilot symbols received in sequence. The output of the adding circuit 113 is applied to an amplitude correcting circuit 114. A similar adding circuit 213 is shown as being provided in the transceiving section of a mobile terminal 200. The Examiner appears to be relying upon the methods (1) through (3) as reading on the above-mentioned feature. However, methods (1), (2) and (3) are three different ways of predicting the pilot signal. One of the three is chosen for this purpose.

Therefore, even if these methods showed in-phase summing in different summation rates the pilot symbols each having a complex vector expression over a predetermined length of a symbol interval, which *none of them do*, there is no teaching of doing more than one of them. That is, only one of the three methods is chosen. In view of this fact, there is *no* teaching of any step or structure for in-phase summing the pilot symbols in at least two different in-phase summation rates.

Moreover, none of the methods teach the recited steps/structure in any event, as discussed above. That is none of the predicting methods show in-phase summing in different summation rates. In view of the fact that only one of the methods is even used, at least one of

the methods would have to show this feature, and none of them do. In fact, there is not even any teaching that the different methods use different summation rates.

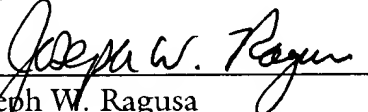
For at least the reasons delineated above, claim 15 is distinguishable over the cited art. Claims 18 and 21 recite a similar feature and are believed patentable for at least the same reasons.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

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Respectfully submitted,

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AMENDMENTS TO THE DRAWINGS

Please replace the drawing sheets currently on file with the formal drawings sheets submitted herewith. The only changes are to Figure 3A and Figure 6, each of which has “REPLACEMENT SHEET” in the upper margin. As required in the Office Action, “PILOT INVERSE MODULATION” has been changed to --PILOT INVERSE MODULATOR-- in the blocks with reference numeral 233 in those figures.